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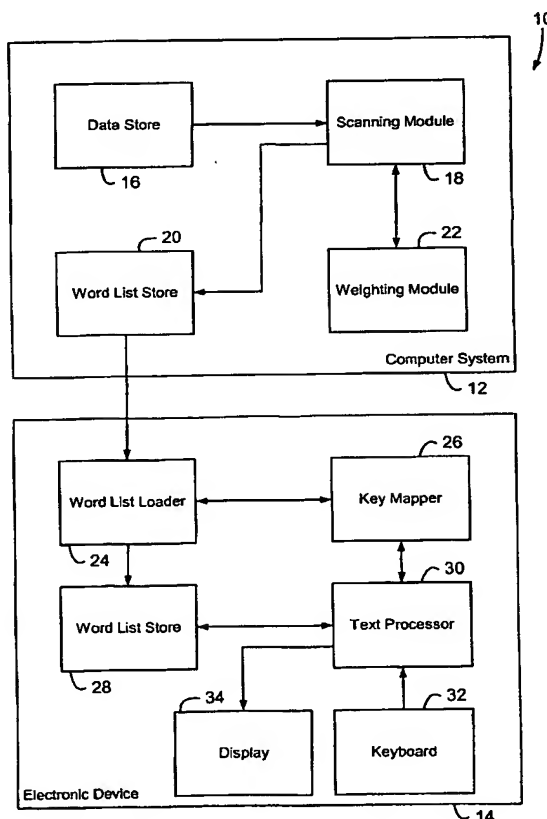
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(84) **Designated States (regional):** ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),

*[Continued on next page]*

**(54) Title:** SYSTEMS AND METHODS OF BUILDING AND USING CUSTOM WORD LISTS



**(57) Abstract:** Standard word lists that are often used for such operations as predictive text, spell checking, and word completion are based on general linguistic data that might not accurately reflect actual text usage patterns of particular users. Systems and methods of building and using a custom word list for use in text operations on an electronic device are provided. A collection of text items associated with a user of the electronic device is scanned to identify words in the text items. A weighting is then assigned to each identified word, and the words and corresponding weightings are stored.

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Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),  
European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE,  
ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO,  
SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM,  
GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

#### Declarations under Rule 4.17:

- *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for the following designations* AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)
- *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for the following designations* AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC,

EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)

- *of inventorship (Rule 4.17(iv)) for US only*

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- *with international search report*
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# INTERNATIONAL SEARCH REPORT

International Application No  
PCT/CA 03/01103

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 G06F17/27

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols):

IPC 7 G06F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, INSPEC, COMPENDEX

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>MARK DUNLOP AND ANDREW CROSSAN: "Predictive text entry methods for mobile phones" SUBMITTED TO PERSONAL TECHNOLOGIES, [Online] May 2000 (2000-05), XP002289569 Retrieved from the Internet: URL: <a href="http://www.cs.strath.ac.uk/~mdd/research/publications/00dunlopccrossan.pdf">http://www.cs.strath.ac.uk/~mdd/research/publications/00dunlopccrossan.pdf</a> [retrieved on 2004-07-22] abstract page 2, left-hand column, line 4 - page 4, left-hand column, line 18; figure 2 page 7, right-hand column, line 4 - page 9, right-hand column, line 15; table 1</p> <p>----- -/--</p>	1-42

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

\* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search

30 July 2004

Date of mailing of the international search report

12.11.2004

Name and mailing address of the ISA

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# INTERNATIONAL SEARCH REPORT

International Application No

PCT/CA 03/01103

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 6 286 064 B1 (GRUNBOCK CHERYL A ET AL) 4 September 2001 (2001-09-04) abstract column 3, line 13 - column 7, line 60 -----	29-42
L	ANONYMOUS: "T9 Adaptive Text Features" TEGIC.COM, [Online] 22 July 2004 (2004-07-22), XP002289570 Retrieved from the Internet: URL: <a href="http://www.tegic.com/pdfs/salesheets/T9%20Adaptive%20Text%20Input%20Sales%20Sheet%203.pdf">http://www.tegic.com/pdfs/salesheets/T9%20Adaptive%20Text%20Input%20Sales%20Sheet%203.pdf</a> [retrieved on 2004-07-22] Outlines adaptive features of versions 5.1 and 5.2 of T9 text input which were released prior to the priority date. page 1, lines 1-15 -----	1,6,24

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/CA 03/01103

## Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-42

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-42

See the following non-unitary subject matter in 1.1 and 1.2 below.

1.1. claims: 1-28

Method and system for building a custom word list for use in an electronic device by scanning a collection of word items associated with the user solving the problem of providing a word list associated with the user of the device. (See description page 7, lines 19-32).

1.2. claims: 29-42

Method and system for mapping the words of a custom word list to keystroke sequences on an electronic device solving the problem of allowing words to be keyed in using the keypad of the electronic device. (See description page 9, lines 1-42).

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2. claims: 43-61

A method of using custom word lists in text operations on an electronic device by receiving user inputs and identifying variations on said inputs in the word list solving the problem of disambiguating user inputs. (See description page 16, lines 4-23).

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3. claims: 62-70

A method of maintaining a custom word list by weighting words entered by a user and further transferring the words entered to a computer system solving the problem of maintaining an updatable word list associated with the user which is mirrored at the computer system. (See description page 18, line 21 - page 19, line 21).

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# INTERNATIONAL SEARCH REPORT

International Application No

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 6286064	B1	04-09-2001	
		US 5953541 A	14-09-1999
		AT 225534 T	15-10-2002
		AU 727539 B2	14-12-2000
		AU 6037998 A	18-08-1998
		BR 9807002 A	07-08-2001
		CA 2278549 A1	30-07-1998
		CN 1248333 T	22-03-2000
		DE 69808498 D1	07-11-2002
		DE 69808498 T2	12-06-2003
		DK 1010057 T3	03-02-2003
		EP 1256871 A2	13-11-2002
		EP 1010057 A1	21-06-2000
		ES 2186124 T3	01-05-2003
		JP 2001509290 T	10-07-2001
		PT 1010057 T	28-02-2003
		RU 2206118 C2	10-06-2003
		WO 9833111 A1	30-07-1998